



**BEST AVAILABLE COPY**

Attorney Docket No. 3111

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the Application of ) Examiner: Daniel G. DePumpo  
ROLAND LEE SMITH ) Art Unit: 3611  
Application No. 10/731,780 )  
Filed: December 9, 2003 )  
For: TRAILER HITCH )  
ALIGNMENT SYSTEM )

Declaration under 37 CFR 1.131

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

I, Roland Lee Smith, declare as follows:

1. I am the sole inventor of the trailer hitch alignment system invention disclosed in the above-cited patent application, which was filed on December 9, 2003.
2. I have reviewed the action dated September 23, 2004 from the US Patent & Trademark Office and the references cited and applied in the Office action, particularly the Kinnard published patent application, which published after I submitted my patent application to the US Patent & Trademark Office.
3. I conceived of my trailer hitch alignment system invention at my home in Mt. Pleasant, South Carolina, and made several models of it prior to January 29, 2003, which is the date of filing of the Kinnard published patent application. In fact, I completed my invention and made and tested several models of it before July 11, 2002, which is evidently the date the Kinnard provisional US patent application was filed.
4. More than four years ago, I designed and built a mobile concession trailer to fulfill contract obligations to the Recreation Department of Mt. Pleasant, SC. I had the need for a fast and reliable trailer hitching device for this operation and could not find one that was suitable. I built one for my own needs before 2002. I discussed my invention with my wife and daughter, who saw and successfully tested the model I built. I worked on the basic idea and design and modified it after that, but before July, 2002. Attached are drawings of my invention, which I drew prior to 2002. After a number of modifications,

131 Declaration

Page 2

test trials, and encouragements from friends and relatives, I decided to submit my invention for a patent. I diligently worked on my invention from the time I conceived of it to the date of filing of the patent application for it, which was December 9, 2003.

Further declarant sayeth not.

This declaration is made with the knowledge that willful false statements and the like are punishable by fine or imprisonment, or both, under 18 USC 001 and may jeopardize the validity of the application or any patent issuing thereon.

1-24-05  
Date

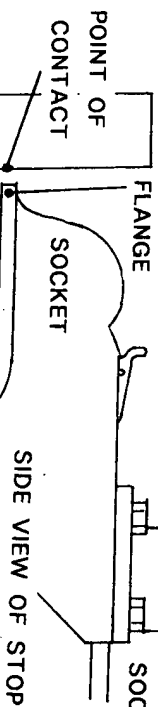
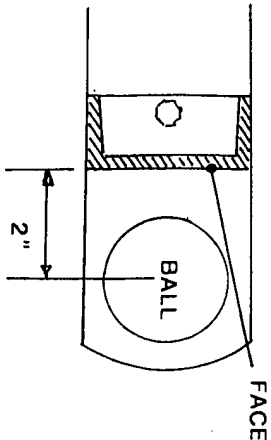
Roland L. Smith  
Declarant

Sworn to before me this 24th day of January, 2005.

John Lambert  
Notary Public for the State of SC  
Commission expires 4/15/06



TOP VIEW OF STOP



SHAPE OF BALL AND SOCKET IS SELF  
ADJUSTING TO COMPENSATE FOR MINOR  
ERRORS OF ALIGNMENT WHEN LOWERING  
SOCKET ONTO BALL WITH TRAILER JACK.

THIS DEVICE AND METHOD OF USE:

- 1-IS DESIGNED FOR EASY USE BY A SINGLE OPERATOR WITHOUT ASSISTANCE.
- 2-FOR OPERATORS WITH NO SPECIAL SKILLS
- 3-DOES NOT REQUIRE PERFECT ALIGNMENT BETWEEN TRAILER AND TOW VEHICLE AND CAN BE APPROACHED BY THE TOWING VEHICLE WITH AN ANGLED APPROACH FROM 0° TO 30°
- 4-HAS NO MOVING PARTS

LATERAL ALIGNMENT COMPLETED BY SIGHT.

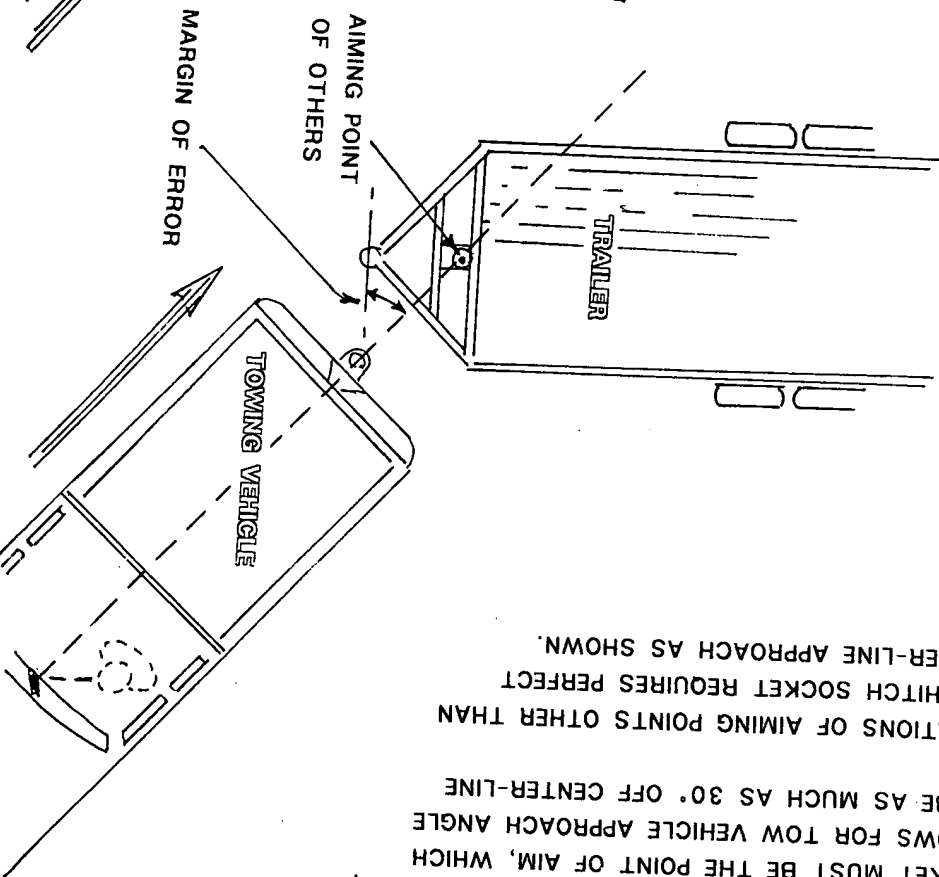
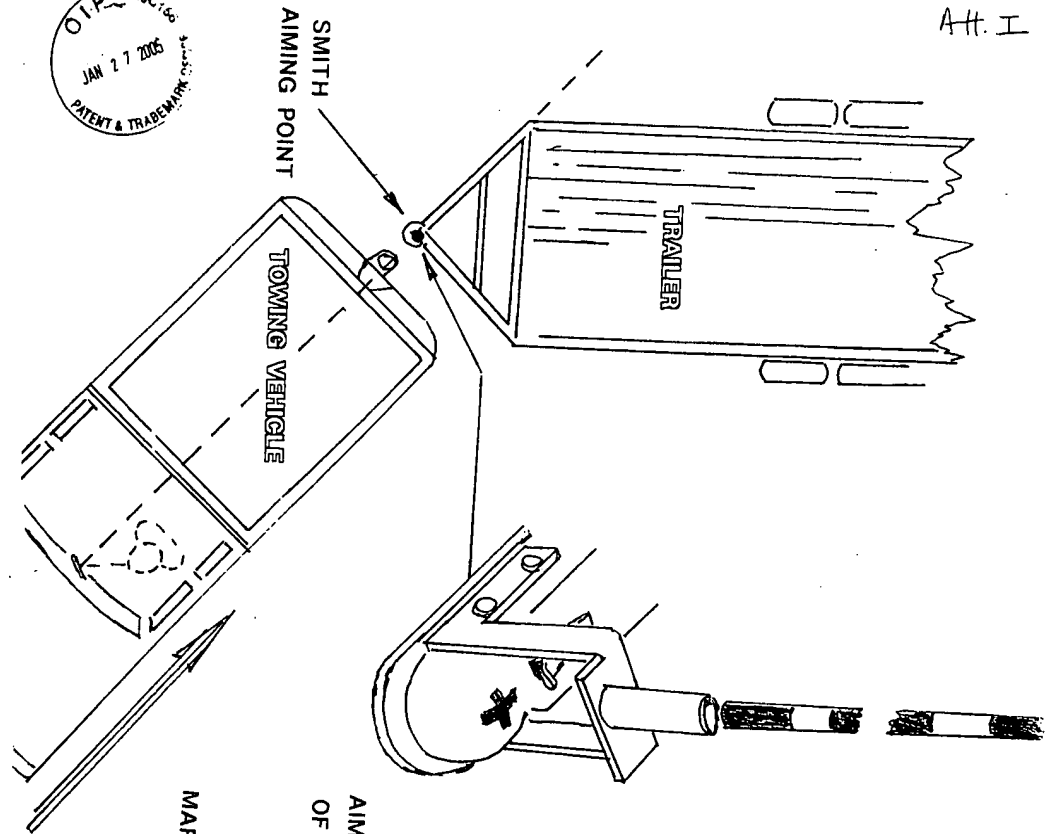
PRE-EXISTING TOWING VEHICLE COMPONENTS ARE KEPT IN ALIGNMENT WITH TARGET ROD OVER THE CENTER OF THE HITCH SOCKET WHILE THE VEHICLE IS BACKED SLOWLY TOWARD THE TRAILER.

VERTICAL ALIGNMENT IS COMPLETED BY FEEL.

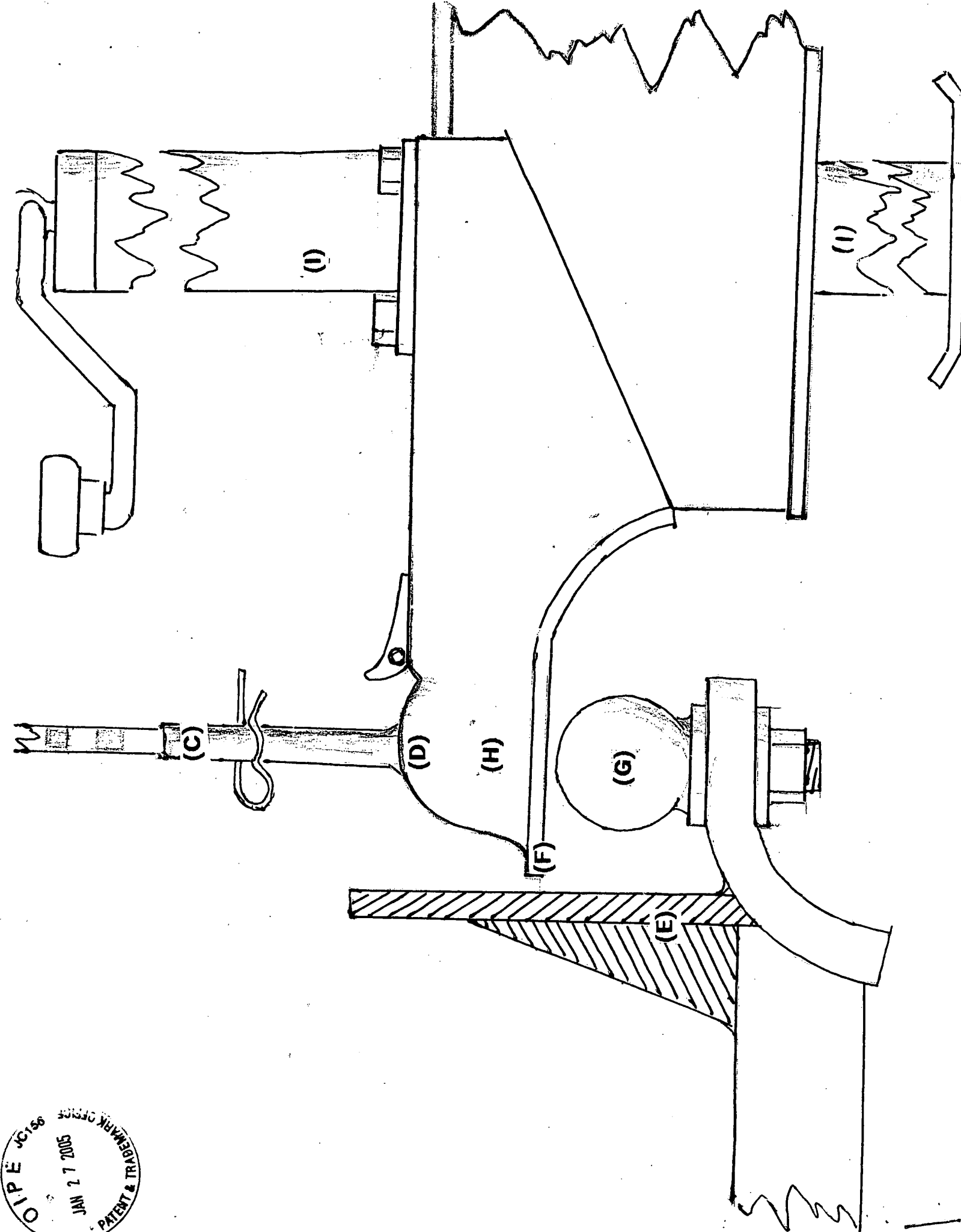
WHILE BEING BACKED SLOWLY, THE STOP LOCATED ON THE BALL-MOUNT WILL CONTACT THE FLANGE OF THE HITCH SOCKET. THE CONTACT WILL BE FELT BY THE DRIVER OF THE TOW VEHICLE. THE ACTION OF THE STOP PLACES THE HITCH BALL DIRECTLY UNDER THE HITCH SOCKET

Att. I

O.P.C. 50146  
JAN 27 2005  
PATENT & TRADEMARK OFFICE

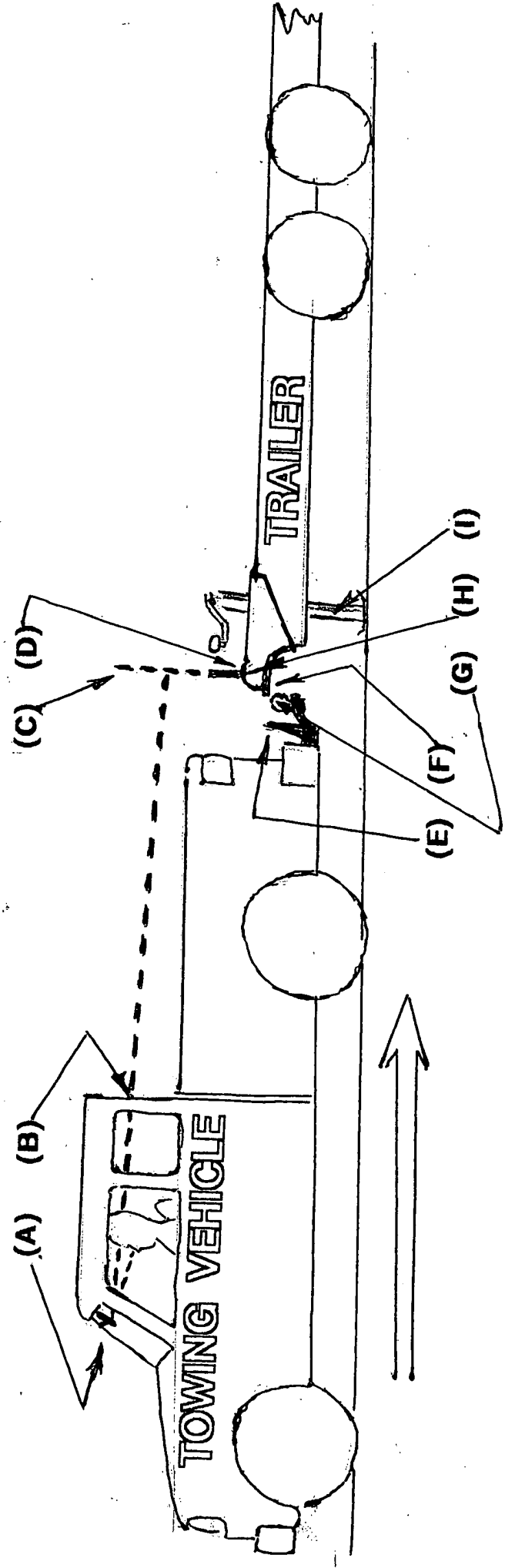


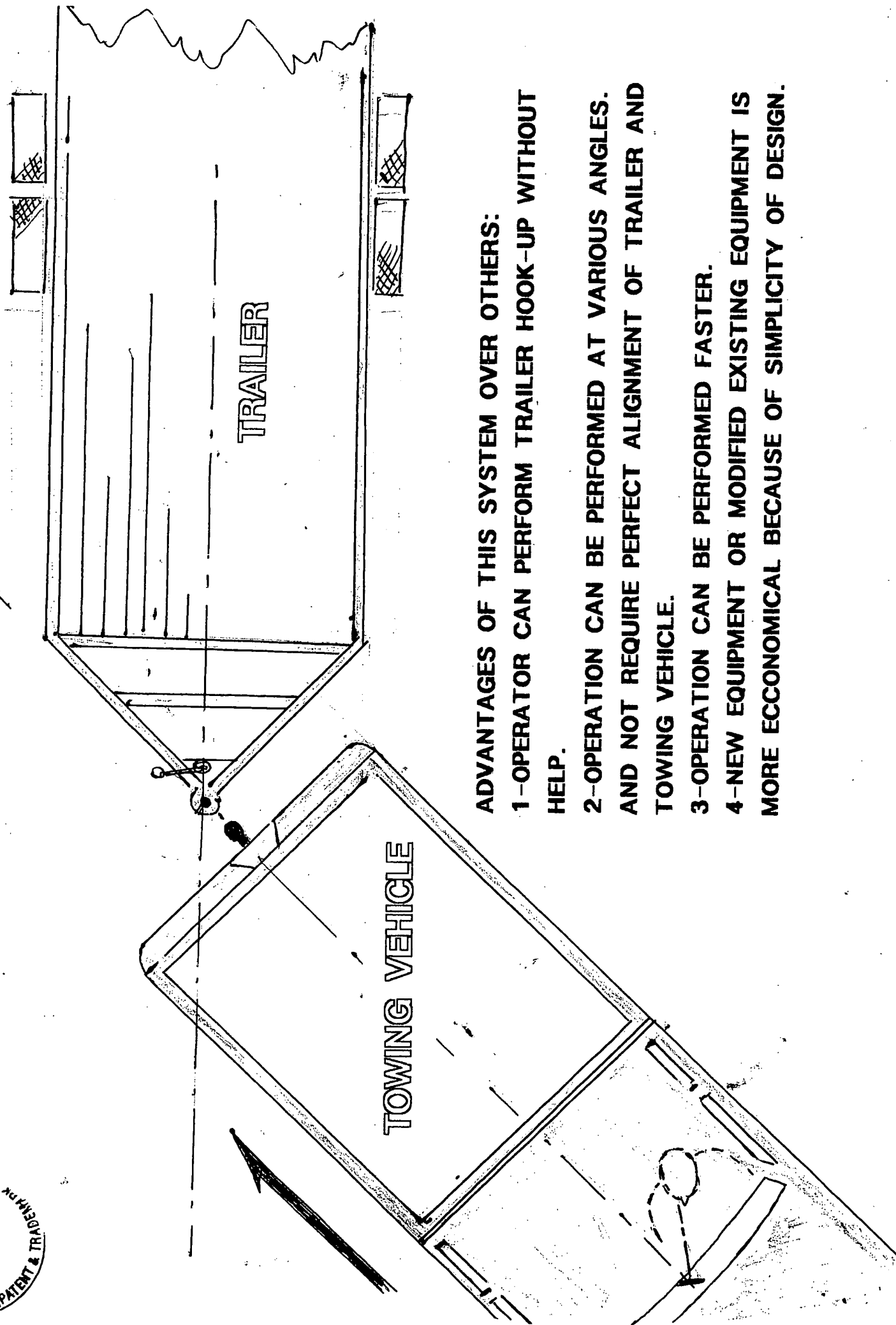
FOR PERFECT LATERAL ALIGNMENT, HITCH  
SOCKET MUST BE THE POINT OF AIM, WHICH  
ALLOWS FOR TOW VEHICLE APPROACH ANGLE  
TO BE AS MUCH AS 30° OFF CENTER-LINE  
LOCATIONS OF AIMING POINTS OTHER THAN  
THE HITCH SOCKET REQUIRES PERFECT  
CENTER-LINE APPROACH AS SHOWN.



OLPE JC156  
JAN 27 2005  
PATENT & TRADEMARK OFFICE

ALIGN VERTICAL PIN-STRIPE IN REAR VIEW MIRROR (A) WITH THE VERTICAL PIN-STRIPE IN CENTER OF REAR WINDOW (B) AND WHILE MAINTAINING ALIGNMENT OF (A) & (B), AIM BOTH TOWARD THE VERTICAL ROD (C) MOUNTED IN THE CENTER OF THE TRAILER HITCH (D). BACK TOWING VEHICLE SLOWLY UNTIL MEETING RESISTENCE WHEN THE BALL MOUNT STOP (E) COMES INTO CONTACT WITH THE FLANGE OF THE TRAILER HITCH (F). THE ABOVE MENTIONED ACTION WILL PLACE THE BALL (G) DIRECTLY UNDER THE TRAILER HITCH (H). LOWER THE HITCH ONTO THE BALL WITH TRAILER JACK (I), SECURE THE LATCHING DEVICE AND SAFETY CHAINS AND DRIVE AWAY.





**ADVANTAGES OF THIS SYSTEM OVER OTHERS:**

- 1-OPERATOR CAN PERFORM TRAILER HOOK-UP WITHOUT HELP.**
- 2-OPERATION CAN BE PERFORMED AT VARIOUS ANGLES. AND NOT REQUIRE PERFECT ALIGNMENT OF TRAILER AND TOWING VEHICLE.**
- 3-OPERATION CAN BE PERFORMED FASTER.**
- 4-NEW EQUIPMENT OR MODIFIED EXISTING EQUIPMENT IS MORE ECONOMICAL BECAUSE OF SIMPLICITY OF DESIGN.**

**This Page is Inserted by IFW Indexing and Scanning  
Operations and is not part of the Official Record**

**BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ **BLACK BORDERS**
- ☐ **IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- ☐ **FADED TEXT OR DRAWING**
- ☐ **BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- ☐ **SKEWED/SLANTED IMAGES**
- ☐ **COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- ☐ **GRAY SCALE DOCUMENTS**
- ☐ **LINES OR MARKS ON ORIGINAL DOCUMENT**
- ☐ **REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- ☐ **OTHER:** \_\_\_\_\_

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.**